ABSTRACT

According to a method of operating a data processing system, one or more monitoring parameter sets are established in a processing unit within the data processing system. The processing unit monitors, in hardware, execution of each of a plurality of schedulable software entities within the processing unit in accordance with a monitoring parameter set among the one or more monitoring parameter sets. The processing unit then reports to software executing in the data processing system utilization of hardware resources by each of the plurality of schedulable software entities. The hardware utilization information reported by the processing unit may be stored and utilized by software to schedulable execution of the schedulable software entities reported by the processing unit. The hardware utilization information may also be utilized to generate a classification of at least one executing schedulable software entity, which may be communicated to the processing unit to dynamically modify an allocation of hardware resources to the schedulable software entity.